

Society of Philadelphia, and was a frequent attendant at its meetings, and at the time of his death one of the Vice-Presidents.

He was a member of many institutions of learning throughout the United States, and was a large contributor to their financial support. On April 15, 1859, he was elected a member of the American Philosophical Society, but in examining its proceedings I do not find that he made any contribution to them.

Mr. Vaux was married in Philadelphia to Miss Graeff, of that city, but was so unfortunate as to lose his wife some years before his death.

One son only was born to him, who, unhappily for his father, died at an early age; so that the last years of his life were passed in widowed and childless loneliness.

For some years before his death his health had become infirm, partly from advancing years, and partly from a disease contracted during a winter passed in Rome in one of his last journeys to Europe.

This disease was not, however, the cause of his death, which resulted from a disease of the abdomen in the nature of a tumor-like growth.

He died on May 5, 1882, in the seventy-second year of his age.

Under the provisions of his will, his large collection of minerals, valued at over fifty thousand dollars, has become the property of the Academy of Natural Sciences of Philadelphia.

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*Second Continuation of Researches among the Batrachia of the Coal Measures of Ohio. By E. D. Cope.\**

(Read before the American Philosophical Society, June 19, 1885.)

CERCARIOMORPHUS PARVISQUAMIS, gen. et sp. nov.

*Char. gen.* Represented by a fusiform body which terminates in a long slender cylindric tail, and which is covered with small subquadrate scales quincuncially arranged. No fins or limbs are preserved, and the form of the head cannot be made out. There are some scattered bodies in the body portion, which look like deeply concave vertebræ with the zygapophyses, of batrachians. There are some linear impressions at one point, which resemble the bristle-like rods of many Stegocephali. These are so few as to be of little importance. The scales are like those of fishes. There are traces of segmentation in the axis of the long tail.

The position of this curious form is quite uncertain. It is quite different from anything observed hitherto in the American coal-measures.

\*The first continuation of these researches, subsequent to the publication of the Report of the Geological Survey of Ohio, appeared in these Proceedings for February, 1877.

*Char. specific.* Scales in their present condition with entirely smooth surface. At a distance of .20 m.m. from the base of the tail they are in twenty longitudinal series. At that point the transverse diameter is 140 m.m. The outline contracts rather abruptly to the tail, of which 750 m.m. are preserved. The surface of the tail is obscured by a thin layer of carbonaceous matter not sufficiently thick to obscure scales; but no scales appear. The body, or such part of it as is preserved, measures 900 m.m. in length. The cephalad half of the body is depressed and somewhat disordered; the caudad half is well preserved. Where the undisturbed portion commences the width is 150 m.m. The diameter of the cup of a supposed vertebral centrum is 1.6. m.m.

A tooth of *Pleuracanthus compressus* Newb. lies close to one edge of the body.

Discovered by Samuel Huston.

ANISODEXIS ENCHODUS, sp. nov.

The generic characters are apparent in the very unequally sized teeth with round section. The portion upon which the species is based is a part of the right ramus of the mandible, which is in the specimen viewed from the inner side. The jaw is obliquely and smoothly truncate from below, for the symphysis and the surface of the bone is smooth. There is a very large tooth near the extremity of the dentary bone. Behind it is an interval equal to three times the diameter of its base, which is followed by a tooth of about one-third the length of the first tooth. Posterior to this one are two teeth of the same size as the second, all being separated from each other by about a tooth's diameter. These are followed by three sub-equal teeth of about two-thirds the length of the first tooth, and separated by about their own diameter from each other. They are all perfectly straight, very acute, and without trace of a cutting edge. The inflection-grooves extend to or a little beyond the middle of the length.

<i>Measurements.</i>	M.
Length of jaw including seven teeth.....	.031
Depth of ramus at second tooth.....	.011
Length of first tooth.....	.0105
"    "    third tooth.....	.004
"    "    sixth "    .....	.0075

The type of the genus is *Anisodexis imbricarius* from the Permian beds. The present species is very much smaller, and the apices of the teeth do not display the opposite cutting edges seen in the *A. imbricarius*.

Discovered by Samuel Huston.

CERATERPETON DIVARICATUM, sp. nov.

This species is represented by a skull whose superior surface is visible on a block of coal shale. In size it exceeds that of the other two American species, the *C. punctolineatum*, and *C. tenuicorne*. Its epiotic horns are of the straight acute type of the latter species, and its sculpture is also different from that of the *C. punctolineatum*.

The cranium is distinguished by its elongation, the outline of the muzzle being a regular oval. The orbits are situated at about the middle of the length of the skull. A transverse line dividing the skull equally marks the anterior two fifths of the orbit. This proportion distinguishes the species from the *C. tenuicorne*,\* where the orbit is entirely within the anterior half of the skull. The horns are rather short, and are straight and acute. The lateral border of the skull contracts somewhat to their base on each side. They diverge at an angle of about  $45^{\circ}$  from the median axis of the skull. The orbits are oval, the transverse being .75 the longitudinal diameter, which is in turn about equal to the interorbital width. The nasal bones are very large, forming the upper surface of the muzzle, and are not distinguishable from the prefrontals, so as apparently to enter by their postero-external angle, into the orbit. Their sculpture consist of sparse thin radiating ridges, which originate near the center of each bone. The frontal bones are rather wide. Their sculpture consists of radiating ridges, which are not very close together, and which originate at a point near the supraorbital border, a little in front of a line which connects the middles of the orbits. On the postfrontal bone the radii run posteriorly. On the parietal they inosculate so as to form coarse fossæ. The teeth are rather small, and their sections at the middle and upwards, are round.

<i>Measurements.</i>	M.
Total length skull on middle line.....	.053
Length to line of anterior orbital border.....	.023
Width at middle of orbit (with lower jaw).....	.044
Width at base of horns.....	.040
Interorbital width.....	.017
Length of horn from base.....	.0075

Should it turn out that the *Tuditonus obtusus* of the same locality and horizon is founded on a Ceraterpeton which has lost its horns, it may still be distinguished from the present animal by the more anterior position of its orbits. These are so placed that their posterior border is crossed by the transverse median line.

Discovered by Samuel Huston.

CLASPERS OF BATRACHIA. Dr. Anton Fritsch has obtained in the Gaskohle of Bohemia, in connection with specimens of two species of Ophiderpeton, bodies which he believes to belong to the external genitalia. They consist of a curved rod terminating in a second expansion, whose projecting edge is divided into fine teeth like a comb. Mr. Samuel Huston has obtained at Linton, in Eastern Ohio, at the locality which has furnished the species here described, a similar body. It differs from those described by Fritsch, in the greater curvature of the shaft in the direction to which the teeth present. Its axis is nearly at right angles to that of the body of

\* Report of the Geological Survey of Ohio, Palæontology ii, p. 372, Pl. xlii, fig. 2.

the bone. The latter is oval and convex, and its thin edge is divided by fine grooves more closely placed than in the species described by Fritsch, which terminate in fissures separating delicate teeth. See *Fauna der Gaskohle und der Kalksteine der Permformation Boehmens*, p. 122, Pl. 20.

Similar bodies were found by myself in the fresh-water beds of the Laramie formation of Montana, and described under the name of *Arotus hieroglyphicus*. (Bulletin U. S. Geol. Survey Terrs., F. V. Hayden, iii, 1877, p. 574.) The shaft of this body is not curved, and the body is flattened. As specimens of the batrachian genus *Scapherpeton* are abundant in this formation and locality, it is not unlikely that these comb-like bones are their claspers.

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## THE BEOTHUK INDIANS.

BY ALBERT S. GATSCHEP.

### *First Article.*

(*Read before the American Philosophical Society, June 19, 1885.*)

The Beothuk or Red Indians are the aboriginal people of the isle of Newfoundland, and their presence there is attested as early as the sixteenth century. Nevertheless, we cannot consider them as the autochthons of that extensive country, for insular populations must always have originated in some mainland or continent.

### HISTORIC NOTES.

Newfoundland was discovered by Sebastian Cabot, on his great northern cruise in 1497, and probably visited also by Gasparo de Cortereal (1500). Although the Indians were not then identified as Beothuks, Cabot noticed that they were *painted with red ochre* and dressed in skins.

In 1527, Oliver Dawbeny saw from his ship *Minion* the inhabitants of Newfoundland passing in a boat; they fled as soon as they perceived that a ship-boat set out to follow them. At Cape Breton, Nova Scotia, savages came aboard his ship; they called the harbor there *Cibo*, and the name of their chief was *Itarey*.\*

When Jacques Cartier first reached Newfoundland in 1534, he landed on May 10 at Cape Bonavista, in the south-eastern part of the island. He describes the Indians he saw as "of good size, wearing their hair in a bunch on the top of their heads and adorned with feathers." A word of the native language, *adhothues*, is used by him to designate a fish of a rather strange appearance, white of color, with a rabbit-shaped head.†

\* Hakluyt's *Voyages*, ed. London, 1810; iii, pp. 168, 169, 245.

† *Piscis unus a Quarterio memoratur, . . . magnitudine oræ, colore plane candido, capite leporino, barbari sua lingua Adhothues appellabant, etc.* *Joan. de Laet, Novus Orbis, Libr. ii, p. 42* (Lugd. Bat., 1633.)

The Indians of "Terra Nova" of the early period are also described in *Barcia, Eusayo*, pg. 159.